

AMENDMENTS TO THE CLAIMS:

This listing of the claims will replace all prior versions, and listings, of the claims in this application.

Claims 17-30 are canceled without prejudice or disclaimer.

Claims 43-59 are newly added.

Listing of Claims:

1. (Currently Amended) A method ~~to manage addresses in a network~~, comprising:

~~connecting a gateway mobile terminal of a mobile network (MONET) to an access point (AP) of an access network (AN) that includes an Access Router (AR);~~

~~making a request, by a gateway mobile terminal of a mobile network (MONET), to obtain a plurality of link addresses from a link address manager of an access network (AN) information relating to a plurality of link addresses;~~

receiving a response to the request; and

allocating, based on the response, individual ones of the plurality of assigned link addresses to individual ones of network nodes of the MONET; and

~~performing a neighbor discovery procedure with the AR to send at least one neighbor advertisement to declare the allocated individual ones of the assigned plurality of link addresses.~~

2. (Currently Amended) A method as in claim [[1]]58, where each network node sends a neighbor advertisement to the AR to declare the link address allocated to individual ones of the network nodes.

3. (Currently Amended) A method as in claim [[1]]~~58~~, where the gateway mobile terminal sends at least one neighbor advertisement to the AR to declare the link addresses allocated to ~~a plurality of individual ones~~ of the network nodes.
4. (Original) A method as in claim 1, where the request is made to obtain a set of link layer addresses (LLAs) that are allocated to individual ones of the network nodes.
5. (Currently Amended) A method as in claim 1, where the request is made to obtain a group identification (Group_ID), ~~and where the method further comprises using the an obtained~~ Group_ID to formulate a set of link layer addresses (LLAs) that are allocated to individual ones of the network nodes.
6. (Currently Amended) A method as in claim 1, where the request is made to obtain a set of link layer addresses (LLAs), ~~and where the method further comprises mapping individual ones of the LLAs to individual hardwired addresses of individual ones of the network nodes.~~
7. (Currently Amended) A method as in claim 1, where the request is made to obtain a set of link layer addresses (LLAs), ~~and where the method further comprises mapping individual ones of the LLAs to individual media access control (MAC) addresses of individual ones of the network nodes.~~
8. (Currently Amended) A method as in claim 4, where the set of LLAs are associated with a first AP, ~~and the method further comprising, in response to changing a connection of the gateway mobile terminal from the first AP to a second AP, sending a message from the gateway mobile terminal to reassociate the set of LLAs with the second AP.~~
9. (Currently Amended) A method as in claim 5, where the Group_ID is associated with a first AP, ~~and the method further comprising, in response to changing a connection of the Gateway mobile terminal from the first AP to a second AP, sending a message from the gateway mobile terminal to reassociate the Group_ID with the second AP.~~

10. (Currently Amended) A method as in claim 5, where the Group_ID is associated with a first AP, and the method further comprising, in response to changing a connection of the gateway mobile terminal from the first AP to a second AP, sending a message from the gateway mobile terminal to obtain another Group_ID that is associated with the second AP.

11. (Currently Amended) A method as in claim 4, where the set of LLAs are-is tracked as a group.

12. (Original) A method as in claim 1, where said gateway mobile terminal comprises a wireless device.

13. (Original) A method as in claim 1, where said gateway mobile terminal comprises a cellular telephone.

14. (Original) A method as in claim 1, where said gateway mobile terminal comprises a mobile router (MR).

15. (Original) A method as in claim 1, where said link address manager is associated with said AN.

16. (Currently Amended) A system to manage addresses in a network, comprising:

a mobile network (MONET) having a gateway mobile terminal and at least one Mobile Network Node mobile network node (MNN) [, ,]; and

an access network (AN) comprising an access point (AP), an access router (AR) and a link layer address (LLA) manager configured to manage LLAs, said MONET being connectable via the gateway mobile terminal to the AP an access point (AP) of an access network (AN) that comprises an Access Router (AR), said system comprising data processors that operate in

~~accordance with stored programs, further comprising: a link layer address (LLA) manager for managing LLAs, where a data processor of the gateway mobile terminal is configured, is responsive in response to the gateway mobile terminal connecting to the AP, to request from the LLA manager information relating to a plurality of LLAs and to allocate individual ones of the plurality of LLAs to individual ones of the MNNs, further comprising at least one data processor where at least one of the gateway router and the MNNs is configured to perform performing a neighbor discovery procedure with the AR to send at least one neighbor advertisement to declare declaring at least one allocated LLA.~~

17-30. (Canceled)

31. (Currently Amended) A mobile station comprising:

~~a stored program and a data processor that executes the stored program for being operable in a data communications network to a transceiver configured to enable communication such that the mobile station functions as a gateway mobile terminal for being coupled between at least one Mobile Network Node (MNN) and an access point (AP) of an access network (AN), that comprises an Access Router (AR), said data communications network comprising a link layer address (LLA) manager for managing LLAs; and~~

~~where said mobile station a data processor configured, is responsive in response to the mobile station connecting to the AP, to request information from the a link layer address (LLA) manager of the AN, wherein the information that relates to a plurality of LLAs, and wherein the data processor is further configured to allocate individual ones of the plurality of LLAs to individual ones of the MNNs.~~

32. (Currently Amended) A mobile station as in claim 31, where said ~~mobile station~~ data processor is operable to perform a neighbor discovery procedure with ~~the an access router (AR) of the AN~~ to send at least one neighbor advertisement to declare an LLA allocated to the at least one MNN.

33. (Currently Amended) A mobile station as in claim 31, where the information relating to a plurality of LLAs comprises a group identification (Group_ID), and where said ~~mobile station~~ data processor is operable to use the Group_ID to formulate a set of LLAs, individual ones of which are allocated to ~~an~~ individual ones of the MNNs.

34. (Original) A mobile station as in claim 31, where the information relating to a plurality of LLAs comprises a set of LLAs individual ones of which are mapped to a hardwired address of individual ones of the MNNs.

35. (Original) A mobile station as in claim 31, where the information relating to a plurality of LLAs comprises a set of LLAs individual ones of which are mapped to a media access control (MAC) address of individual ones of the MNNs.

36. (Currently Amended) A mobile station as in claim 31 where the request is made to obtain a set of LLAs, where the set of LLAs are associated with a first AP, and where said ~~mobile station~~ data processor further operates, in response to changing a connection of the mobile station from the first AP to a second AP, to send a message to reassociate the set of LLAs with the second AP.

37. (Currently Amended) A mobile station as in claim 33 where the Group_ID is associated with a first AP, and where said ~~mobile station~~ data processor further operates, in response to changing a connection of the mobile station from the first AP to a second AP, to send a message to reassociate the Group_ID with the second AP.

38. (Currently Amended) A mobile station as in claim 33 where the Group_ID is associated with a first AP, and where said ~~mobile station~~ data processor further operates, in response to changing a connection of the mobile station from the first AP to a second AP, to send a message to obtain another Group_ID that is associated with the second AP.

39. (Original) A mobile station as in claim 31, where a set of LLAs are tracked as a group.

40. (Currently Amended) A mobile station as in claim 31, where said mobile station comprises a wireless device ~~having cellular capability~~.

41. (Original) A mobile station as in claim 31, where said mobile station comprises a cellular telephone.

42. (Currently Amended) A mobile station as in claim 31, where said mobile station ~~data processor further operates to perform~~ comprises a mobile router (MR)-function.

43. (New) A program storage device readable by a mobile station, tangibly embodying a program of instruction executable by a data processor of the mobile station for performing operations, the operations comprising:

requesting, by a gateway mobile terminal of a mobile network (MONET), a plurality of link addresses from a link address manager of an access network (AN);

receiving a response to the request; and

allocating, based on the response, individual ones of assigned link addresses to individual ones of network nodes of the MONET.

44. (New) A program storage device as in claim 43, the operations further comprising: performing a neighbor discovery procedure with an access router (AR) of the AN to send at least one neighbor advertisement declaring the allocated individual ones of the assigned link addresses

45. (New) A program storage device as in claim 44, where each network node sends a neighbor advertisement to the AR to declare the link address allocated to the network node.

46. (New) A program storage device as in claim 43, where the request is made to obtain a set of

link layer addresses (LLAs) that are allocated to individual ones of the network nodes.

47. (New) A program storage device as in claim 46, where the set of LLAs are associated with a first AP, the operations further comprising, in response to changing a connection of the gateway mobile terminal from the first AP to a second AP, sending a message from the gateway mobile terminal to reassociate the set of LLAs with the second AP.

48. (New) A program storage device as in claim 46, where the set of LLAs is tracked as a group.

49. (New) A program storage device as in claim 43, where the request is made to obtain a group identification (Group_ID), where the operations further comprise using an obtained Group_ID to formulate a set of link layer addresses (LLAs) that are allocated to individual ones of the network nodes.

50. (New) A program storage device as in claim 49, where the Group_ID is associated with a first AP, the operations further comprising, in response to changing a connection of the Gateway mobile terminal from the first AP to a second AP, sending a message from the gateway mobile terminal to reassociate the Group_ID with the second AP.

51. (New) A program storage device as in claim 49, where the Group_ID is associated with a first AP, the operations further comprising, in response to changing a connection of the gateway mobile terminal from the first AP to a second AP, sending a message from the gateway mobile terminal to obtain another Group_ID that is associated with the second AP.

52. (New) A program storage device as in claim 43, where the request is made to obtain a set of link layer addresses (LLAs), where the operations further comprise mapping individual ones of the LLAs to individual hardwired addresses of individual ones of the network nodes.

53. (New) A program storage device as in claim 43, where the request is made to obtain a set of link layer addresses (LLAs), where the operations further comprise mapping individual ones of

the LLAs to individual media access control (MAC) addresses of individual ones of the network nodes.

54. (New) A program storage device as in claim 43, where said gateway mobile terminal comprises a wireless device.

55. (New) A program storage device as in claim 43, where said gateway mobile terminal comprises a cellular telephone.

56. (New) A program storage device as in claim 43, where said gateway mobile terminal comprises a mobile router (MR).

57. (New) A program storage device as in claim 43, where said link address manager is associated with said AN.

58. (New) A method as in claim 1, further comprising: performing a neighbor discovery procedure with an access router (AR) of the AN to send at least one neighbor advertisement declaring the allocated individual ones of the assigned link addresses.

59. (New) A system as in claim 16, where at least one of the gateway router and the MNNs is configured to perform a neighbor discovery procedure with the AR to send at least one neighbor advertisement declaring at least one allocated LLA.